Channel Mitigation Monitoring Sheets I, II, III, AND IV

Monitoring Data Record

Project Title: U-2524AC Site 1 COE Action ID: 200321137
Stream Name: UT No. 9 to Bull Run DWQ Number: 030909
City, County and other Location Information: Greensboro Western Loop, Guilford Co.
Sta. 57+80 Lt. to 58+57 Rt. -L-
Date Construction Completed: Water was turned into the stream on June 2005 and planted in March 2005. Monitoring Year: (5) of 5
Ecoregion: 8 digit HUC unit 03030002
USGS Quad Name and Coordinates:
Rosgen Classification: Proposed reach is a E5 stream type
Length of Project: 198' Urban or Rural: Urban Watershed Size:
Monitoring DATA collected by: M. Green & J. Young Date: 8/30/10
Applicant Information:
Name: NCDOT Roadside Environmental Unit
Address: 1425 Rock Quarry Road Raleigh, NC 27610
Telephone Number: (919) 861-3772 Email address: mlgreen@ncdot.gov
Consultant Information:
Name:
Address:
Telephone Number: Email address:
Project Status: Complete

Monitoring Level required by COE and DWQ (404 permit/ 401 Cert.): Level (1) ~~2~~ ~~3~~
Monitoring Level 1 requires completion of *Section 1, Section 2 and Section 3*

Permit States: NCDOT shall perform the following components of Level I monitoring twice each year for the 5 year monitoring period (summer and winter): Reference photos, plant survival, and visual inspection of channel stability. If less than two bankfull events occur during the first 5 years, NCDOT shall continue monitoring until the second bankfull event is documented. The bankfull events must occur during separate monitoring years. In the event that the required bankfull events do not occur during the 5 year monitoring period, the USACE, in consultation with resource agencies, may determine that further monitoring is not required.

Section 1. PHOTO REFERENCE SITES
(Monitoring at all levels must complete this section)

Total number of reference photo locations at this site: 3 reference points, 2 photos at each
Dates reference photos have been taken at this site: 7/26/06, 2/15/07, 7/19/07, 1/16/08, 7/15/08, 2/9/09, 7/27/09, 2/17/10, 8/30/10

Individual from whom additional photos can be obtained (name, address, phone):

Other Information relative to site photo reference: A site map is included with this report showing the photo point locations.

If required to complete Level 3 monitoring only stop here; otherwise, complete section 2.

Section 2. PLANT SURVIVAL
Attach plan sheet indicating reference photos.

Identify specific problem areas (missing, stressed, damaged or dead plantings):

Estimated causes, and proposed/required remedial action:

ADDITIONAL COMMENTS: Planted vegetation noted onsite includes: green ash, tulip poplar, black willow, silky dogwood, and sycamore. Other vegetation onsite included: sweetgum, pine, wax myrtle, willow oak, mimosa, lespedeza, woolgrass, *Juncus* sp., and various grasses. NCDOT proposes to discontinue plant survival monitoring.

If required to complete Level 1 and Level 2 monitoring only stop here; otherwise, complete section 3.

Section 3. CHANNEL STABILITY

Visual Inspection: The entire stream project as well as each in-stream structure and bank stabilization/revetment structure must be evaluated and problems addressed.

Report on the visual inspection of channel stability. Physical measurements of channel stability/morphology will not be required. Include a discussion of any deviations from as-built and an evaluation of the significance of these deviations and whether they are indicative of a stabilizing or destabilizing situation.

This is the Year 5 Summer evaluation of this stream relocation. The stream is stabilized at this time except for some minor bank erosion that still exists below a crossvane @ Sta. 58+20-L- as noted below. This crossvane seems to have stabilized for now with little or no change since the last evaluation. Photo Point #3 (Downstream) shows this crossvane. There was very little water flow noted in the channel at time of monitoring. During the 5-year monitoring period, two bankfull events were visually noted during the February 2009 and February 2010 evaluations. NCDOT proposes to discontinue channel stability monitoring.

8/30/10	Station Number 58+20-L-	Station Number 58+20-L-	Station Number	Station Number	Station Number
Structure Type	Crossvane	Crossvane			
Is water piping through or around structure?	Last rock on left arm of crossvane has fell into channel	Second rock on right arm of crossvane has fell into channel			
Head cut or down cut present?					
Bank or scour erosion present?	Minor erosion present	Minor erosion present			

Section 4. DEBIT LEDGER

The entire UT No. 9 to Bull Run (Site 1) stream relocation site was used for the U-2524AC project to compensate for unavoidable stream impacts.

UT No. 9 to Bull Run

Site 1

Photo Point #1 (Upstream)

Photo Point #1 (Downstream)

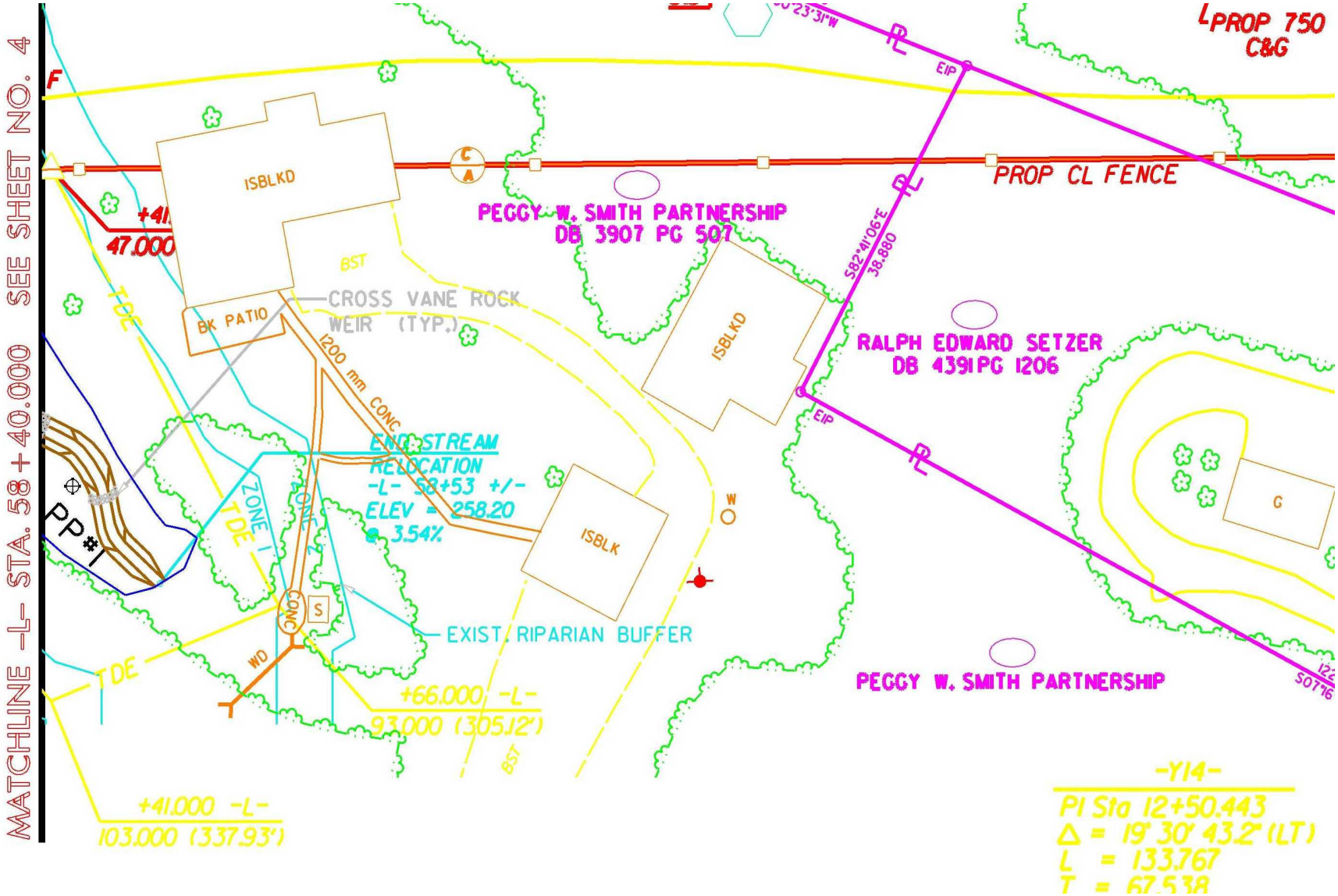
Photo Point #2 (Upstream)

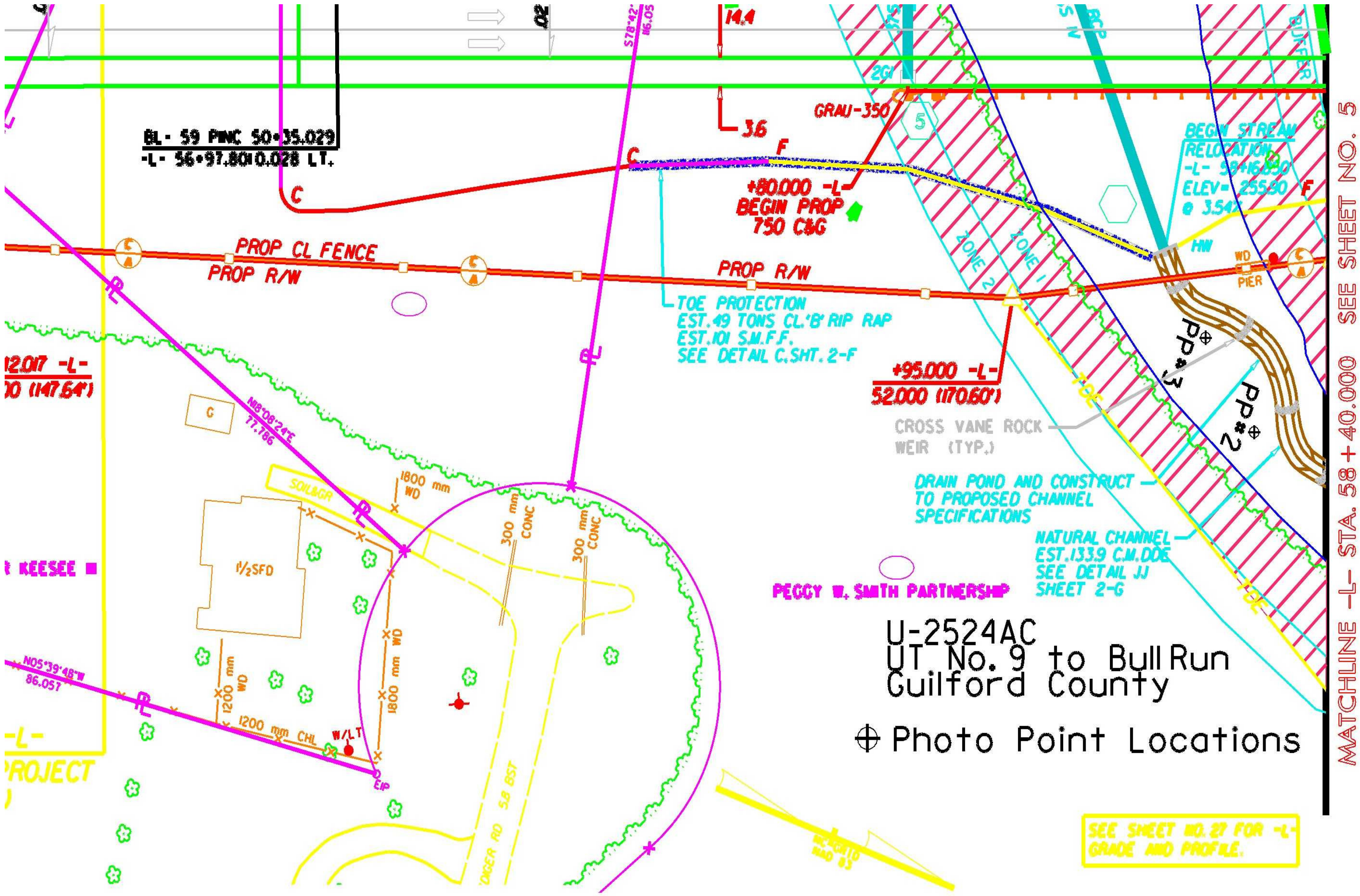
Photo Point #2 (Downstream)

Photo Point #3 (Upstream)

Photo Point #3 (Downstream)

Year 5 Summer – August 2010


MATCHLINE -L- STA. 58+40.000 SEE SHEET NO. 4
PROP 750 C&G
PROP CL FENCE
PEGGY W. SMITH PARTNERSHIP
DB 3907 PG 507
ISBLKD
BK PATIO
CROSS VANE ROCK WEIR (TYP.)
1200 mm CONC
END STREAM RELOCATION
-L- 58+53 +/-
ELEV = 258.20
@ 3.54%
RALPH EDWARD SETZER
DB 4391 PG 1206
ISBLK
EXIST. RIPARIAN BUFFER
PEGGY W. SMITH PARTNERSHIP
PP#1
TDE
ZONE 1
ZONE 2
CONC
WD
BST
EIP
PL
+66.000 -L-
93.000 (305.12')
+41.000 -L-
103.000 (337.93')
-Y14-
PI Sta 12+50.443
Δ = 19° 30' 43.2" (LT)
L = 133.767
T = 67.538



MATCHLINE -L- STA. 58+40.000 SEE SHEET NO. 5
BL- 59 PINC 50+35.029
-L- 56+97.801 0.028 LT.
PROP CL FENCE
PROP R/W
PROP R/W
GRAU-350
+80.000 -L-
BEGIN PROP
750 C&G
TOE PROTECTION
EST.49 TONS CL.'B' RIP RAP
EST.101 S.M.F.F.
SEE DETAIL C,SHT. 2-F
+95.000 -L-
52.000 (170.60')
CROSS VANE ROCK
WEIR (TYP.)
DRAIN POND AND CONSTRUCT
TO PROPOSED CHANNEL
SPECIFICATIONS
NATURAL CHANNEL
EST.133.9 C.M.DDE
SEE DETAIL JJ
SHEET 2-G
BEGIN STREAM
RELOCATION
ZONE 1
ZONE 2
PP#2
PP#3
PEGGY W. SMITH PARTNERSHIP
1½SFD
SEE SHEET NO. 27 FOR -L-
GRADE AND PROFILE.
U-2524AC
UT No. 9 to Bull Run
Guilford County
⊕ Photo Point Locations